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A Test Analysis of Unsuccessful Industrial Companies

By E. M. BUSH
(New York Office)

The Bureau of Business Research of the University of Illinois has recently presented under the above title a report of an investigation of the financial ratios of a number of companies which have failed. This investigation was undertaken in the hope of discovering some aspects of the data which might be taken as indications of approaching failure. With data covering a number of failures as a basis, after the causes bringing about failure had been at work, the resulting conditions were examined to observe symptoms of failure which might serve a useful purpose in interpreting the status of companies that are weak but have not as yet failed.

While many financial studies have been made stressing the factors and conditions of business success, and standard ratios, tests and rules have been developed for the typical business concern, comparatively few studies have dealt with unsuccessful enterprises. It may be of interest, therefore, to note the procedure followed in this investigation and its many limitations, as well as the findings resulting therefrom, the essential features of which are set forth briefly in the following.

Scope and Limitations of Study

The accepted criterion of failure for the companies included in this study was the action of the courts in appointing a receiver. The study was concerned with periods prior to receivership, as the fate of all unsuccessful enterprises up to the time of receivership is to some degree comparable, but varies greatly thereafter.

This study was an analysis of financial ratios computed from the published statements of a group of companies that have failed in recent years, and the amount of available data satisfactory for this purpose was very much restricted. Of the numerous companies failing among the industrials, comparatively few publish financial statements adequate for analysis to the extent contemplated for this study. It was possible, generally speaking, to secure reasonably adequate financial statements for only the larger of the companies, whereas it is well known that failures among larger companies are relatively few as compared with those among smaller companies.

Satisfactory data was further limited to that of companies for which not only balance sheets but at least partial profit and loss statements were available, and for a period of at least three years and preferably for five or ten years. Failures during the period of the World War and the years immediately following were eliminated from consideration. Although the statements of some extend back into those years, none of the companies included in this study failed at that time. The effect

of the war period was not avoided, however, as some of the companies were found to have been in poor condition as far back as the war period and the years immediately following. Although the failure of these companies came later, it appears to have actually begun in this earlier period.

The result of the search for data on failing companies, with the foregoing limitations, was a group of statements for 29 enterprises representing 17 different industries, the balance sheets and at least partial income statements of which had been obtained for three or more years before the failure of each company. In a number of instances the statements did not show the final year before failure, as the last available statements were for the second year before failure.

Standardization of Statements

The statements of the selected companies were carefully standardized, insofar as possible from the information which could be derived therefrom, so that the resulting ratios would be comparable. The standardization reduced the balance sheets to the following accounts:

Marketable securities
Cash
Receivables
Inventories
Fixed assets
  (after depreciation)
Other assets
Current liabilities
Long term debt
Preferred stock
Common stock
Surplus and reserves

In a few cases it was impossible to adjust fixed assets to a depreciated figure, as the depreciation reserves were included with surplus and reserves on the balance sheet. Outside investments (in subsidiaries, etc.) were added to fixed assets. Good will and other intangibles were excluded from the standardized balance sheets. The standardized income statements included the following classifications:

Sales
  Cost of sales
Net earnings
  Other income
Total income
  Interest
  Other deductions
Net income

Ratios Developed

From the standardized statements for each company, various ratios were computed, the more significant of which are mentioned hereinafter. To put the ratios of the failing companies on a comparable basis from the point of view of time, the various ratios of each company were arranged according to the year before failure, using the year of failure as the basic period.

In comparing the ratios of these companies no distinction was made between such companies as pass into receivership early to conserve the interests of creditors and stockholders, and those which carry on for a number of years suffering heavy losses which deplete their assets. It is apparent, however, that even in the last year before failure the conditions of two companies that failed might not be directly comparable. It was not attempted to determine whether the causes of failure were those operating from the outside, such as competition, change in demand for product, operation of the business cycle, and casualties, or causes operating from the inside, such as incompetency and fraud. The possibility

was disregarded that a few of the companies studied were economically unwarranted from their inception, which might be inferred from the fact that the condition of these companies was poor from the first year for which data was available. No attempt was made to determine whether dishonesty had been among the causes resulting in the failure of the companies represented in the data of this study.

Typical Companies

The report, the chief features of which are stated briefly in this article, presents in detail the ratios and conclusions drawn from the specific data of five unsuccessful companies, considered typical, in order to illustrate actual cases. The first of these was on electrical equipment manufacturing company which gradually passed into receivership. The second was a manufacturer of cotton goods, in which business as a whole, economic conditions have been unfavorable in recent years. The third was a brewery company, which, after the adoption of prohibition measures immediately following the World War, attempted to continue operations by producing nonalcoholic beverages. The fourth was a steel manufacturing concern, which, after a period of unsuccessful operation, went into receivership and disposed of its properties. The fifth was engaged in the rubber industry and went into receivership early in order to protect certain of its security holders. The data for these companies covered periods ranging from 10 to 12 years.

The essential part of the analysis of unsuccessful industrial companies was based upon the average of the ratios of the 29 selected companies, including the ratios of the 5 typical companies above mentioned. Inasmuch as the ratios of these 5 companies showed no important deviation from the general trends disclosed by the averages of the ratios of the 29 companies, the specific data of the 5 companies is not discussed in detail in this article.

Ratios of the Average Company

A group of average ratios (arithmetical averages of the corresponding ratios of the individual companies), covering a 10 year period immediately preceding failure, was obtained from the ratios of the 29 companies used in this analysis. As the data for a number of companies in the earlier years was incomplete, the average ratios are based upon a varying number of cases. These average ratios may be considered to represent a purely hypothetical average company and illustrate trends and characteristics which, in most cases, the 29 companies had in common.

For the first three years (tenth, ninth and eighth years before failure) the ratio of current assets to total assets increased—the increases being registered in securities and inventories. Correspondingly the fixed assets to total assets decreased. After the eighth year the current assets to total assets gradually decreased, whereas both the fixed assets to total assets and other assets to total assets increased. The ratio of fixed assets to total assets in the eighth year before failure was .551 to 1; it had increased to .677 to 1 in the final year before failure. As would be expected of average ratios, the changes were gradual ones with no sharp fluctuations.

The long term debt to total assets ratio increased from the ninth year on to the time of failure. The ratio

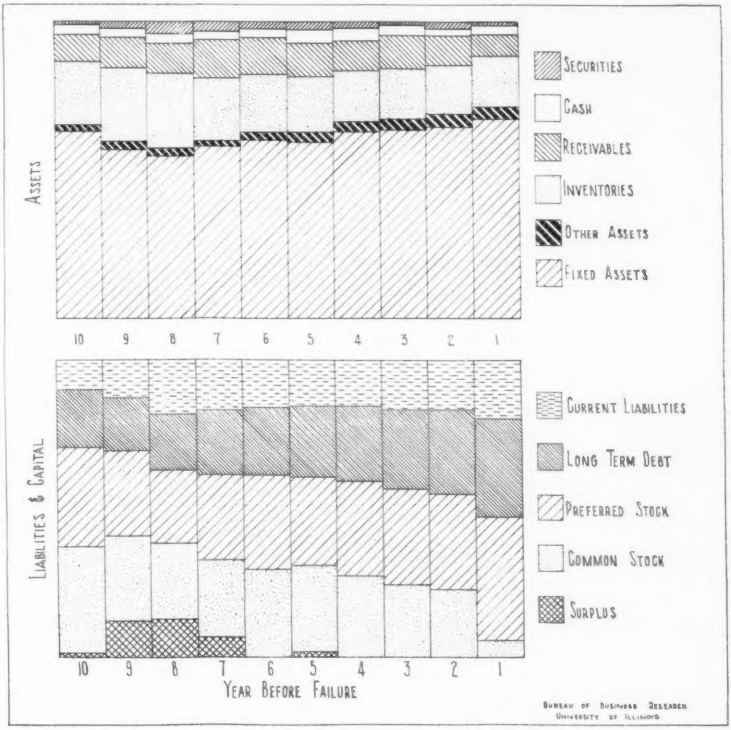
of current liabilities to total assets showed an irregular trend, increasing in the tenth to eighth years, inclusive, tending to decrease slightly from the eighth year to the third year, then increasing for the last three years. The increase in the first three years leads to the natural conclusion that the apparently favorable showing of the current assets for those years was deceptive since it was almost entirely offset by this increase in current liabilities.

The proportions of preferred stock and common stock to total assets decreased during the first three years of the period, whereas the surplus to total assets ratio increased during this period. The net worth to total assets ratio decreased even in the first three years and continued to decrease until the time of failure. Ten years before failure the net worth of three-fourths of the companies equaled 59 per cent. or more, and of one-fourth of the companies equaled 95 per cent. or more, of total assets. In the final year before failure the net worth of one-fourth of the companies was equal to less than 37 per cent., and of three-fourths of the companies was equal to less than 67 per cent. of total assets.

From the seventh year onward the average ratios of preferred stock and common stock to total assets increased, and the relation of surplus to total assets decreased from a surplus to a rapidly increasing deficit. These changes in ratios were due to heavy losses and consequent declines in total assets. The deficit in the last year before failure was exceedingly large (27.3 per cent of total assets), which would indicate that failure usually was immediately preceded by extremely severe losses.

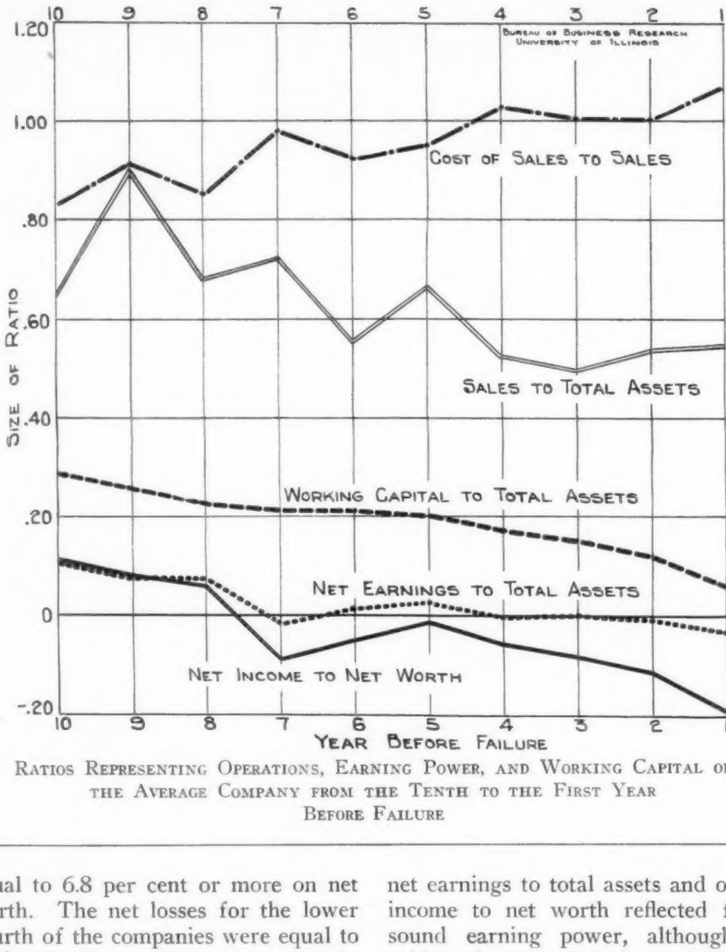
In consideration of the foregoing ratios, as well as of some of the ratios discussed hereinafter, it should be kept in mind that they were computed on the basis of total assets, the amounts of which were subject to fluctuation. The report does not indicate what changes took place in the total assets for the first three years of the period, but does state that there were declines, presumably large, in total assets from the seventh year before failure to the time of failure, due to heavy losses. It is apparent, therefore, that the changes in ratio are more significant than would appear from mere differences in the figures, as these ratios were calculated on the basis of total asset amounts which fluctuated, and, at least for the last seven years of the period, constantly decreased. The foregoing ratios all showed signs of growing financial disintegration from at least the seventh year to the time of failure. These tendencies also were generally typical of the 29 companies.

The general trend of the average ratios showed abrupt declines for the ratios of sales to total assets and sharp increases for the ratios of cost of sales to sales. A most obvious symptom of failure was revealed by the fact that in the fourth year before failure the cost of sales exceeded the sales and did not fall below this mark thereafter. It was observed that in the tenth year before failure the net earnings were 22 per cent. or more of sales for one-fourth of the companies and 12 per cent. or more of sales for three-fourths of the companies. In the last year before failure only one-fourth of the companies had operating costs less than the sales whereas for three-fourths of the companies the operating costs exceeded the sales.



DISTRIBUTION OF ASSETS, LIABILITIES, AND CAPITAL OF THE AVERAGE COMPANY FROM THE TENTH TO THE FIRST YEAR BEFORE FAILURE

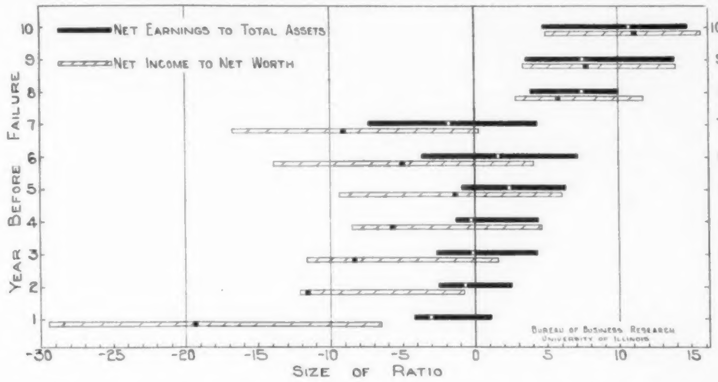
The first serious break in the favorable position was recorded in the seventh year before failure. The unfavorable condition arising in this year was reflected in the trends of the ratios of net earnings to total assets and net income to net worth. In the tenth year before failure the ratio of net earnings to total assets for three-fourths of the companies was above .048 to 1 and for one-fourth of the companies .149 or more to 1. In the final year before failure only one-fourth of the companies had net earnings equal to 1.1 per cent. of total assets. The lower fourth of the companies suffered net operating losses equal to 4.2 per cent. or more of total assets. In the tenth year before failure reasonably sound earning power was reflected by the ratios of net income to net worth. For one-fourth of the companies in this year the ratio was .157 or more to 1 and for three-fourths of the companies the ratio was .049 or more to 1. In the final year before failure three-fourths of the companies sustained net losses



Ratios Representing Operations, Earning Power, and Working Capital of the Average Company from the Tenth to the First Year Before Failure

equal to 6.8 per cent or more on net worth. The net losses for the lower fourth of the companies were equal to 29.5 per cent or more of net worth. In this last year losses on net worth existed for more than three-fourths of the 29 companies. Beginning in the seventh year, one-fourth of the companies, or more, were unable to record any net earnings on total assets or any net income on net worth.

In the tenth, ninth and eighth years before failure the average ratios of net earnings to total assets and of net income to net worth reflected fairly sound earning power, although an evident downward tendency prevailed. In the seventh year the abrupt decline in the ratios reflected the losses suffered by many companies. Although some immediate improvement followed the seventh year, the general trend was downward until the time of failure. It is interesting to note that the seventh year before failure represented the depression years of 1921



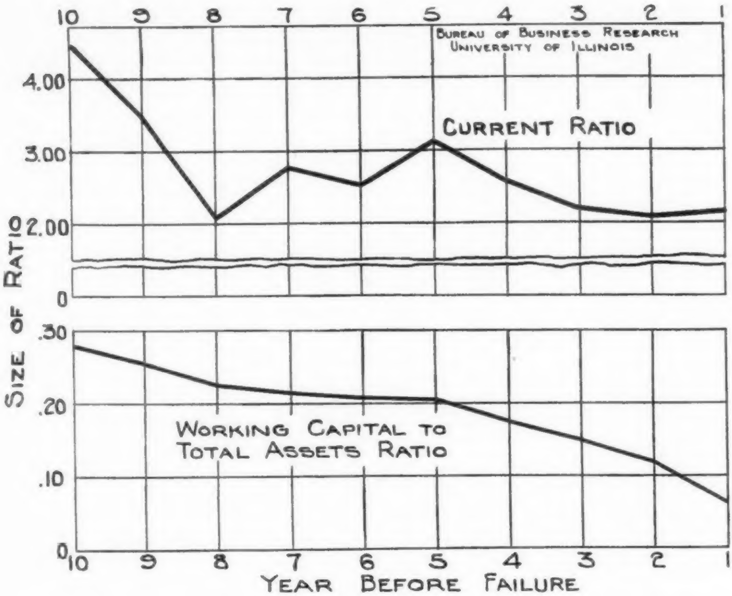
RANGES OF THE MIDDLE 50 PER CENT OF THE CASES FOR THE NET EARNINGS TO TOTAL ASSETS RATIOS AND NET INCOME TO NET WORTH RATIOS FROM THE TENTH TO THE FIRST YEAR BEFORE FAILURE

or 1922 for the majority of the 29 companies. Considering the average company, its failure may possibly be attributed to the fact that it was unable to recover from the depression period following the World War.

Working Capital to Total Assets Ratios and Current Ratios

The average ratio of working capital to total assets declined steadily throughout the ten year period. It is noticeable that the steady breaking down of the current position was more clearly shown by the ratios of working capital to total assets than by the current ratios. The decline in the average ratio of working capital to total assets in the last three or four years before failure was increasingly acute, indicating increasing difficulties in current financing in that period. For most of the 29 individual companies it was found that the same downward trend was disclosed by the study of either ratio. It was noticed, however, that the current ratio of any one company was likely to be subject to wide fluctuations, whereas the working capital to total assets ratio usually presented a smoother trend In a few cases the current ratio failed to indicate a weakened condition, although the ratio of working capital to total assets reflected lack of sufficient working capital.

In this connection may be noted the tendency to overstress the importance of the current ratio and the significance of various standard ratios which have been commonly accepted as working bases for general use in specific types of industry. It is apparent, as cited above, that a company might have a favorable current position and yet lack sufficient working capital to carry on its operations. For instance, the current ratio for the average company did not fall below the "2 to 1" standard, whereas inadequacy of working capital appeared to have been an important factor in the ultimate failure of the companies



THE CURRENT RATIO AND THE WORKING CAPITAL TO TOTAL ASSETS RATIO OF THE AVERAGE COMPANY

studied. Although for purposes of short term credit the relationship of current assets to current liabilities may be of considerable importance, the study of such relationships as that of working capital to total assets is indicated as an essential supplement to a study of the current ratio in a careful analysis of a company's current position.

Intangibles

Of the 29 companies studied, 16 had intangibles among their assets at some time during the period preceding failure. In the last three years before failure, which may be considered the most vital years, 11 of the 29 companies were encumbered by intangibles equal to 10 per cent. or more of the total tangible assets. In the last year before failure 7 of these companies had intangibles in excess of 10 per cent. of the total tangible assets. The fact that some of the companies had eliminated intangibles shortly before failure only strengthens the inference that the inclusion of doubtful items of intangibles among the assets of these companies may have added to their difficulties.

The intangibles for the 16 failures mentioned above were quite large in relation to common stock. In 2 cases the relation of intangibles to common stock was equal to 100 per cent. This

(*Continued on page* 24)

Audit of Building and Loan Associations*

By John Farrar
(*Manager, Newark Office*)

A "building and loan association" is a group of shareholders or members, acting together either through a corporation or under a declaration of trust, (a) to enable its members to acquire or improve real estate or remove encumbrances therefrom, by the payment of money in periodical installments or principal sums, and (b) to accumulate funds to be returned to members who do not obtain advances for such purposes. Such associations in New Jersey are supervised by the State Department of Banking and Insurance and are regulated by the General Building and Loan Association Act.

This act contains certain requirements relating to the directors and officers. The secretary and the treasurer are usually the most active officers in conducting the affairs of an association. Besides other duties, the secretary keeps the books or supervises the accounting, and signs all checks, notes and drafts. In many cases the entire financial and accounting management is handled by the secretary. The treasurer acts as custodian of the funds and securities and signs all checks, notes and drafts, in conjunction with the president and secretary.

Each New Jersey association is required to submit an annual report to the State Department of Banking and Insurance and to each member or shareholder. For this purpose the directors annually appoint an examining committee to make, or have made, a thorough examination of the financial condition and operations of the association.

In many cases, associations do not employ outside auditors in view of the legal limitation placed on "operating expenses" of associations with assets in excess of $100,000. However, in addition to the possible detection of fraud and the moral effect on employees, together with constructive recommendations which may be made, the reports of outside auditors are often beneficial in connection with loans from banks, or may be submitted to prospective members. The fact that accounting fees are usually limited does not relieve the auditor from the necessity of conducting a thorough review of the financial condition of the association.

During an examination of a New Jersey building and loan association, the auditor should have the following available for reference thereto:

(1) General Building and Loan Association Act of New Jersey (with amendments)
(2) By-laws of the association
(3) Letter of instructions to Examining Committees from Frank H. Smith, Commissioner, under date of August 1, 1929

A list of the books and records of the association is then prepared.

The auditor should start with the balance sheet as shown by the annual report at the close of the preceding fiscal year, and after tracing and giv-

* This article, while written primarily with respect to building and loan associations organized under the laws of New Jersey, would also apply in general to the audit of associations in other states.

ing proper effect to the cash transactions and journal entries, (the latter of which are usually very few) during the period under review, the resulting balances reflect the condition of the association as at the close of the year.

The following paragraphs set forth the general auditing procedure for verification of the various assets, liabilities and operations.

Loans on Bond and Mortgage: A schedule of mortgage loans is prepared from the shareholders ledger showing the series number, certificate number, name of borrower, location of property, number of shares pledged (if any), amount of mortgage and appraised value of property. The bonds and recorded mortgages are then examined and compared with this schedule. Such relevant papers as the abstract of title, assigned collateral share certificates, fire insurance policies, the application for loan and the approval by the appraisal committee are also examined at this time. The auditor's report should include a list of all papers which are missing from the mortgage envelopes and remain unaccounted for.

The appraisal committee is composed of not less than three appraisers, at least one of whom must be an officer or director of the association. The duty of this committee is to certify the value, to the best of their judgment, of each parcel of real estate on which an application for loan is made.

It will be necessary to keep in mind the following limitations and requirements of the statute with relation to mortgage loans:

(1) Loans to members on bonds secured by mortgage should represent a first lien on real estate in the State of New Jersey, and must not exceed 80 per cent of the appraised value if improved, and 50 per cent if vacant land. They should be accompanied by pledge of association shares.

(2) Loans to non-members, or to members without pledge of their shares, on bonds secured by mortgage, should represent a first lien on improved real estate in the State of New Jersey, and must not exceed 65 per cent of the appraised value.

These mortgage loans may be simultaneous with, or subsequent to (1), provided the sum of all the loans on the real estate mortgaged does not exceed 65 per cent of the appraised value, and provided further, that at least 50 per cent of the sum of the loans is of the character set forth in (1); i.e., secured by pledged shares.

(3) No association having mortgage loans outstanding in excess of \$100,000 may lend on any parcel of property in excess of 10 per cent of its total mortgage loans outstanding; associations having mortgage loans of \$100,000 or less may not lend in excess of \$10,000 on any parcel of property.

The minutes of the directors' meetings should reflect authorization of all mortgage loans.

The method of determining the payment of local taxes and the adequacy of fire insurance on properties mortgaged should receive attention from the auditor.

Loans on Association Shares: A schedule of loans on association shares is prepared from the shareholders ledger, showing series number, certificate number, date of loan, number of shares, name of borrower and amount of loan. Promissory notes and collateral share certificates are examined and compared with this schedule. The

statute limits such loans to 90 per cent of the withdrawal value of the pledged shares. Proper authorization of all share loans should be recorded in the minutes of the directors' meetings.

Real Estate Owned or Sold Under Contract: Deeds to the association for "real estate owned" are examined and an analysis of the property accounts is prepared to verify the basis of valuation. All encumbrances should be properly recorded on the books of the association.

Real estate sold under contract may be substantiated by examination of the contract, tracing payments during the period, and/or direct communication with the purchaser.

The insurance policies are inspected to determine whether or not the association is sufficiently covered in case of fire loss, etc.

The statute includes the following limitations and requirements relating to real estate owned:

(1) An association may invest funds in the purchase and/or improvement of real estate (a) upon which it may have a mortgage, judgment or other lien, (b) for previously contracted sale to shareholders.

(2) An association may invest funds to the extent of 5 per cent of the value of its assets, in the purchase of lands and the erection or improvement of buildings thereon, to provide offices for transacting its business.

(3) Every association must provide a "real estate reserve," equivalent to 10 per cent of the book value of real estate acquired through foreclosure, to cover possible losses in the disposition thereof. In computing this reserve which is provided from current earnings, the "profits reserved" (required by 1929 law and based on 2 per cent of net earnings of each year) may be considered as a part of the required 10 per cent.

Securities Owned: Securities owned or held as collateral for loans are examined and listed with appropriate information. The balance sheet should reflect the accrual for interest receivable as at the examination date. The statute permits an association to invest its funds in any or all securities in which savings banks of the state are authorized by law to invest, or may loan up to 80 per cent of the market value thereof.

Cash: The examination of cash transactions for the period should be comprehensive, as substantially all changes in the condition of the association are reflected through cash receipts and disbursements.

The cash on deposit at the close of the period is reconciled with the general books in the usual manner and confirmed by direct correspondence with the various depositories. The special bank account, subject to the check of attorney or conveyancer, should be thoroughly audited. Interest credited thereto by banks should be transferred periodically to the regular cash account.

The deposits credited on the bank statements should be compared individually with the receipts entered in the cashbook to establish that the treasurer has charged himself therewith. Incident to this comparison it should be noted whether receipts have been accurately and promptly deposited. The additions of receipts as shown by the shareholders ledger, which serves as a book of original entry, are verified and the totals of the various receipt columns are traced to the cash book controls.

Office cash funds are counted and if any cash receipts are on hand the reason therefor should be ascertained, as such amounts should be promptly deposited in the banks at all times.

Arrearages: The payments of dues, interest, premiums and fines are traced in the shareholders' ledger from the beginning of the year and arrearages thus reflected as at the close of the period, are listed and confirmed with the delinquent members. The directors should receive information as to the number of months individual accounts are in arrears. The statute permits directors to terminate a membership, at their option, after installments have not been paid for six consecutive months.

Taxes and Insurance Advanced: Taxes and insurance advanced are verified in much the same manner as "arrears." Payments of amounts carried as at the close of the preceding fiscal year are traced and old accounts brought to the attention of the directors.

Liquid Investment Fund: The statute requires that each association shall establish a "liquid investment fund" to be used only for payments to shareholders for shares withdrawn and matured and share loans. This fund should be equivalent to not less than 10 per cent of the average annual cash payments made in the three preceding fiscal years to stockholders on shares withdrawn and matured (including profits and dues) and share loans, such sum to be invested in (a) obligations of the United States, (b) interest bearing bonds of the State of New Jersey, (c) bonds of other states (with certain restrictions), (d) bonds of any county, township, municipality or school district of New Jersey (with certain restrictions), and (e) demand or time deposits or certificates of deposit in the name of the association and designated "liquid investment fund." Associations must not agree to invest funds in the purchase of real estate or mortgage loans to members or non-members when the "liquid investment fund" is less than the required percentage. The above mentioned law became operative July 4, 1930.

Dues Paid by Shareholders: The dues paid by shareholders, the most significant item on the liability side of the balance sheet, are so stated as to include dues in arrears and to be less the dues paid in advance.

Building and loan association shares, all of which appear to have a like status so far as ranking in liquidation is concerned are designated as follows:

(1) Installment—Payable periodically as the constitution provides.
(2) Single payment—Issued upon payment of an amount which, with profits credited at the percentage apportioned to installment shares, will mature over the same period.
(3) Juvenile—Shares held for the exclusive right and benefit of a minor.
(4) Paid-up—Maturity value paid in advance by shareholders.

Each holder of paid-up shares of an association is limited to 2 per cent of the association's liability for dues on installment shares, to exceed $25,000 to a member only in case of inheritance or the holding of shares as collateral security.

There are two methods for verification of dues paid by shareholders, as follows:

(1) Comparison of pass-books with shareholders ledger.

(2) Confirmation by direct correspondence with shareholders.

The first method is usually unsatisfactory due to the difficulty in securing all pass-books for inspection.

Where confirmations are requested from the individual shareholders, the statements sent out should reflect the status of their accounts with relation to mortgage loans, share loans, arrears, advance payments, taxes and insurance advanced, etc. Replies are mailed direct to the auditor and differences in the accounts may be incorporated in a supplemental report to the directors.

The shares outstanding in each series at the close of the preceding year, after giving effect to shares matured and withdrawn and new series initiated during the period, multiplied by the payment period of the respective series, should reflect the dues paid by installment shareholders together with the number of shares outstanding in accordance with the closing balance sheet. When certificates are numbered consecutively, an examination of open certificate stubs may furnish an additional check on shares outstanding.

Cancelled certificates, covering shares matured and shares withdrawn during the period, are to be inspected. The profits paid on withdrawals should receive attention from the auditor.

Installment shares and paid-up shares are presented separately in the balance sheet of the association.

Profits Apportioned: An important feature of the building and loan association audit is the verification of the annual statement to shareholders, which will include an examination of the method used in apportioning profits on unmatured series of shares. There are several plans of apportioning profits, some of which are satisfactory and others of which are inequitable and entirely inaccurate. In the event that the by-laws of the association prescribe the method to be used, the auditor has no choice in the matter, although comment may be made in the report suggesting the desirability of adopting a more accurate method.

An analysis of surplus showing the changes from the close of the preceding fiscal year may also be included in the report.

Lapsed Shares: A schedule of lapsed shares is prepared and confirmed with the individual shareholders. The directors of an association, at their option, may terminate a membership when the shareholder has failed to pay the installments for six consecutive months. The by-laws of the association usually determine the time for lapsing of shares.

Matured Shares Unpaid: A schedule of matured shares unpaid is prepared and confirmed with the shareholders. If payments are made before the examination is completed, the cancelled certificates may be inspected and cash disbursements traced. The subsequent tracing of the completed transaction probably obviates the necessity of direct confirmation.

Notes Payable: Liabilities for notes payable to banks and other creditors are verified by direct communication. The assignment of mortgage loans or the furnishing of collateral in any other form should be clearly noted in the balance sheet. Prepaid or accrued interest is computed to the examination date.

The statute permits the directors, by resolution adopted, to borrow money

on the note of an association, provided that time loans mature within one year from date of loan; and provided further, that the total amount of money borrowed at no time exceeds 30 per cent of the dues liability to installment shareholders. Every association must reserve unused of this borrowing capacity an amount equal to 5 per cent of its liability for dues paid by members, such reserve capacity to be used only for payment of shares withdrawn and/or matured. No mortgage loan may be made by an association so long as the aforementioned reserve borrowing capacity remains impaired.

Due Borrowers on Construction Loans: The granting of mortgage loans on buildings under construction usually provides for periodical payments by the association. Mechanics' lien releases are inspected in connection with the aforementioned payments and confirmation of the unpaid balance secured from the mortgagor.

Ordinary mortgages which have been approved within the period by the directors, and for which no cash has been disbursed at the balance sheet date, should be considered as both assets and liabilities of the association if the liens have been recorded and the transaction substantially consummated.

Mortgages Payable: Mortgages payable are usually in connection with the purchase of property for the establishment of association business offices. A certificate is secured from the mortgagee substantiating the amount of the liability. Accrued interest payable is computed to the balance sheet date.

Dividends Payable on Paid-up Shares: The liability for accrued dividends on paid-up shares is reflected to the date of the balance sheet. Such dividends are usually based on a fixed rate, payments being made to shareholders at specified dates. The Board of Directors should authorize all cash dividends paid during the period.

Advance Payments: Advance payments of dues, interest and premiums are verified in the same manner as "arrearages." The payment of interest in advance for not exceeding one month, is not deemed usurious under the state law.

Reserves: The statute requires each association to provide two types of reserves out of current earnings, before dividends are declared or profits apportioned to shareholders.

The first of these reserves is termed "profits reserved" in the balance sheet and is computed on the basis of 2 per cent of the annual net profits. This reserve is established to provide for unforeseen losses and extraordinary expenses, and should at no time exceed 15 per cent of the total assets of the association.

The second is the real estate reserve which has been commented on under the caption "real estate owned." Any losses in the disposal of real estate is first charged against this reserve and secondly, against the "profits reserved."

Profits not apportioned to share holders and carried in the balance sheet as undivided profits must at no time exceed 5 per cent of the association's total assets.

Verification of Income: Interest received on mortgage and share loans is the largest item of income to a building and loan association and should therefore, be carefully verified by the auditor. The monthly payment

of interest on mortgage loans usually agrees with payments of installment dues by the shareholders availing themselves of such loans. These postings which are made in detail in the shareholder's ledger may be compared throughout the period, but as the rate of interest is usually 6 per cent interest received may be substantially checked in total.

Premiums are usually payable at the same time as interest and dues, and in many associations are based on fixed rates authorized by the board of directors. This item of income may also be substantially verified in total. Where gross premiums are charged or received upon a contract sale, a loan or other advancement, such amounts are not to be regarded as wholly earned profits but should be deferred over a period fairly estimated to mature the shares pledged thereon, and in a decreasing proportion carried as an unearned profit in the balance sheet.

Fines and membership fees are small items of income to the association. The statute includes a limitation of fines to be charged on accounts delinquent for three successive months and also a limitation of membership fees to 25 cents per share.

Income from real estate owned is traced throughout the period under review and comparison is made with values carried on the books to ascertain the percentage of return on investment.

The payment of profits on shares withdrawn is less than the amount credited to the respective shares, excepting in the case of series approaching maturity for which the withdrawal value is fixed at the same amount as book value. This variation between profits paid on withdrawals and profits credited to such shares, is included as an item of income. It will be necessary to compute the aforesaid difference in order to give proper effect to such amounts in the income statement.

Verification of Expenses: The expenses of an association are usually few and of nominal amounts, outlays for salaries seldom being large or excessive. These items are verified in the usual manner by examination of paid checks and receipted vouchers.

The statute states that the expenses of associations with assets over $100,000 are not to exceed the total membership fees for the year plus 1 per cent of the annual average of (a) loans on mortgages, shares and other securities, (b) investment in securities and (c) the equity in real estate owned and sold under contract. The term "expenses" in this law does not include taxes on mortgages, or taxes, assessments, repairs and insurance on real estate owned, or dividends or dividends or profit on single payment, paid-up or unpaid matured shares, or interest on borrowed money, or expenses of foreclosure and other litigation.

General: The auditor should ascertain that the building and loan association has complied with provisions of the revenue act allowing exemption from federal income tax liability.

Fidelity bonds covering officers and employees handling or having custody of cash, securities, etc., are inspected. The state law requires the adequate bonding of such officers and employees, the extent of which is usually covered in the by-laws of the association.

The minutes of directors' meetings

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The L. R. B. & M. Journal

Published by Lybrand, Ross Bros. and Montgomery, for free distribution to members and employees of the firm.

The purpose of this journal is to communicate to every member of the staff and office plans and accomplishments of the firm; to provide a medium for the exchange of suggestions and ideas for improvements; to encourage and maintain a proper spirit of cooperation and interest and to help in the solution of common problems.

1930 Firm Meeting

In accordance with what has become an established custom, the annual firm meeting was held in Washington, D. C. on October 27th and 28th. Almost all our partners and managers, and a number of staff members from various offices, were present, the total attendance exceeding 50. The extended geographical scope of our organization was indicated by the fact that the offices in our own country which were represented reached from Boston on the East to Dallas in the South, to Chicago and Detroit on the Great Lakes, to San Francisco and Los Angeles on the Pacific Coast and to Portland in the far Northwest. Our European offices were represented this year by our European partner, Mr. Davies, who came from Paris to attend the meeting and thereafter to visit a number of our American offices.

By far the largest part of the time was devoted to the discussion of our every day problems, such as the selection and training of personnel, the technical problems arising in our audit and accounting work and the preparation of certified financial statements, and the way in which we can increase the value of our work to our clients.

Two mornings were devoted to the annual struggle on the golf links for the possession of the Lybrand-Ross cup. The Seattle, Washington and Philadelphia offices have successively won this trophy. This year a new star arose on the golf horizon, Mr. H. C. Hawes, who took possession of the cup for the Chicago office.

The concluding session on Tuesday evening was devoted to a dinner, at which Mr. Lybrand acted as toastmaster. Various parts of the country, as well as Europe, in the person of Mr. Davies, were heard from and the occasion formed a fitting climax to the several days spent in friendly contact, in the enjoyment of the golf links, and especially in that helpful counsel which contributes to the solution of problems and the advancement of the firm's interests.

Notes

The afternoon session of the annual afternoon and evening meeting of the New York State Society of Certified Public Accountants held on October 20, 1930, was devoted to a consideration of the subject of "Frauds and Defalcations". The large attendance indicated the widespread interest of members of the Society in this subject.

Three papers were presented, one of them being by Mr. Lenhart of our firm on Detection of Frauds and Defalcations. In addition to presenting some general aspects of the subject, Mr. Lenhart cited various instances of frauds and defalcations, pointing out how many of them might have been detected if the accounts had been regularly audited.

On October 13th one of our partners, Mr. Donald M. Russell, who is a director of the Philadelphia Chapter of the National Association of Cost Accountants, addressed the students of the accounting classes at Temple University.

In a recent issue of the N. A. C. A. Bulletin, the Secretary referred to the sail fish hanging in the office of Mr. Gee, this year's president of the Association, and characterized it as a "certified audit of a fish story".

Audit of Building and Loan Associations

(*Continued from page* 15)

are to be read for the period under review to ascertain whether or not the resolutions as adopted, comply with requirements of the statutes and have been properly recorded on the books.

The examination procedure as outlined may be greatly facilitated by having the staff of the association prepare the various trial balances and schedules required, together with the statements to shareholders. In this event, it will be necessary for the auditor to compare such schedules and statements with the association records.

Annual Conference of New England Tax Officials' Association

By G. W. Elwell
(Boston Office)

The annual conference of New England Tax Officials took place this year on September 25 and 26 at the Lake Morey Club, Fairlee, Vermont.

In general, the conference produced nothing conclusive and nothing particularly new, with the single exception of the inheritance tax contest between the state of Connecticut and the executor of one of her decedents, which is described more fully below.

The principal matters of interest discussed, and the points of view expressed, were as follows.

First, a sharp difference of opinion appeared to exist between some who favored greater centralization and uniformity in the assessment and collection of taxes, and those who believed that too much centralization had already taken place. This appeared at two points, the first being with relation to state income taxes, where several people favored the enactment of practically uniform laws by the various states, taxing income upon the same basis as under the federal law. The principal reason for this was that it would avoid the necessity for preparing separate returns by entirely different methods, and thereby eliminate much labor. Another reason given was that it would reduce the number of questions which would have to be carried to court for solution. Against this, however, much opposition was apparent. Mr. Irving L. Shaw, Director of the Division of Income Taxes in Massachusetts, read a paper in which he gave reasons why the classified system in that state was better, in his opinion, for the people of Massachusetts. There was also apparent the same undercurrent of skepticism regarding any income tax which has always manifested itself in certain states, particularly those in which agriculture is a large factor. Judging from the evidence which has been developed at other conferences, it is doubtful if a general income tax will ever produce a substantial part of the revenue in an agricultural state, and accordingly the proponents of uniformity will without doubt continue to have difficulty in making their views prevail.

On the other hand, the reports of various speakers indicated a considerable trend toward centralization of administration in the collection of taxes, particularly where the central unit was the state. This has resulted in uniformity of treatment of taxpayers, reduction of cost of collection, and equitable apportionment of the proceeds between the political subdivisions.

Second, a complete divergence of opinion was also manifest with reference to the sort of tax system which was most desirable. Certain speakers objected strenuously to the large number of special taxes now being imposed, and were in favor of reducing them to three or four principal kinds of tax, possibly increasing the rates, and eliminating the host of special

taxes, principally excises, each of which produce little revenue and each of which showed a high percentage of administrative cost. Contrary to this view, Professor Thomas S. Adams of Yale University stated flatly that he considered the best tax system to be the one which had a large number of different taxes, no one of them severe enough to constitute a serious burden. He referred to the tax on tobacco as the best tax in the United States, for the reason that it was least felt.

Third, Leland Powers, Esq., of Boston, delivered an address on the taxation of subsidiary corporations. The problems involved, which are recognized by all tax authorities, arise from the fact that subsidiaries are often formed for the purpose of keeping the parent company out of a particular state, and the inter-company billing is on a basis which is artificial and would not obtain between two corporations which were strangers to each other. In the administration of the Massachusetts corporation excise tax the authorities are empowered to disregard inter-company accounts payable if in their opinion they were incurred for the purpose of preventing or reducing taxation, and are also empowered to compute the tax upon a practically arbitrary basis if the inter-company billing does not appear to be on an arm's length basis. The validity of some of these provisions is doubtful, and apparently no solution has yet been found in any state. Mr. Powers confined himself to mentioning some of the injustices which result from the exercise of arbitrary power by tax authorities, and argued in favor of a complete acceptance of the book method of treating inter-company transactions. He did not, however, cite any authorities in support of any particular method of procedure.

The state of Connecticut contributed an item of news which is surprising, in that it comes as a novelty at so late a date. A short time ago one Anna Martin, domiciled in Connecticut, made a will in which she named a New York attorney as her sole executor, and sent all of her securities to him in New York City. Shortly thereafter she died domiciled in Connecticut, owning certain tangible personal properties in that state but no real estate. Under the decision of the U. S. Supreme Court in the recent case of Farmers Loan and Trust Company against Minnesota, the state of Connecticut was entitled to an inheritance tax on all intangible property owned by her at the date of her death, wherever situated, and upon other legal principles it should also have had a tax on the tangible personalty situated in Connecticut at the date of her death. This latter class of property, however, was physically removed to New York by the executor after he had secured his appointment in a New York court. Since this property could be handled without the necessity of stock transfers there was no one to prevent his reducing it to possession without paying tax. The executor then declined to pay any tax to the state of Connecticut.

In order to create a party to litigation the state of Connecticut caused proceedings to be instituted and secured the appointment of an administrator in that state. He then demanded the return of the personal property, but the executor declined to comply. Suit was then brought in equity in the

courts of New York, but the latter, although sympathetically disposed, claimed to have no jurisdiction. The matter has now been carried to the United States Supreme Court, and all conceivable points of law have been raised. During all these proceedings the tax officials of New York have cooperated with the state of Connecticut, because they realize that if this suit is lost it will be possible in many cases to deprive the state of domicile of its tax. In other words, no state wishes such a precedent established.

It will be noted that this situation arose solely because New York has a statute which authorizes the granting of original administration of the estate of any person when it appears that that person died owning property in New York State. Under that statute the domicile of the decedent is not material. The present case was discussed at great length and with considerable interest both at the formal sessions of the conference and in the intervals between. Legal opinions were expressed to the effect that no state should grant original administration unless the decedent died domiciled in that state. If such a uniform rule could be agreed upon by the various states the difficulty would apparently be overcome. We are, however, still concerned with the problem which would arise if a person died domiciled in one state and owning real estate in another. At first thought it seems that the matter could perfectly well be handled by the securing of original administration in the state of domicile, followed by ancillary administration in the other state. It was suggested, however, that in some cases it might not be possible to find any one interested in taking out the original administration, or that the state of domicile might even decline to grant it if it appeared that the only property of the decedent was the real estate located in the other state. It was clear from the discussion that a real problem has been disclosed, and that it has existed for a long time and for some strange reason has not come to the front before.

Bankers Believe in Audits

It seems a long time, and yet it is comparatively but a few years, since bank officials began urging on the borrowers of bank funds the desirability of submitting certified balance sheets. Older practitioners will recall how almost alone James G. Cannon, at that time president of the Fourth National Bank in New York, stood in his ardent advocacy of a requirement that borrowers submit certified balance sheets.

A recollection of the hesitancy with which banks gradually came to adopt this requirement as a general policy, because of the fear of possibly offending good customers, makes the more interesting the fact that a prominent bank in Detroit, the Union Guardian Trust Company, recently published an advertisement in the *Detroit Free Press* and the *Michigan Manufacturer and Financial Record*. An exact copy of the advertisement as it appeared in the publications referred to is reproduced on the following page.

This advertisement indicates the appreciation of progressive bank officials of the service which accountancy can render business. The service of banking and accountancy to business can in many cases be made most helpful by a close cooperation between them.

Calendar Reform or Not?

By Edward M. Guild
(*Boston Office*)

A special Committee of the Chamber of Commerce of the United States of America has been considering the advisability of calendar reform. We all know the inconveniences of the present calendar; these become even more apparent after reading the report of the Committee. Statistical comparisons are thrown off more than I realized; one month may have four week-ends and the next five, or a month may have four week-ends one year and five the next. This variation also applies to quarters.

There are various suggestions before the Committee. In one, each quarter consists of two months of 30 days and one month of 31, with one quarter having an additional day.

Jan.	30	April	30	July,	30	Oct.	30		
Feb.	30	May	30	Aug.	30	Nov.	31		
Mar.	31	June	31	Sept.	31	Dec.	31		
	91		+ 91		+ 91		+ 92	=	365

Another reform is to abolish the 31st day of August and add one day at the end of February.

Jan.	31	April	30	July	31	Oct.	31		
Feb.	29	May	31	Aug.	30	Nov.	30		
Mar.	31	June	30	Sept.	30	Dec.	31		
	91		+ 91		+ 91		+ 92	=	365

The thirteen months of 28 days explains itself. This plan necessitates an intercalary or "blank" day, which is a day having no date, that is to say, not part of a week or a month.

Jan.	28	April	28	July	28	Oct.	28		
Feb.	28	May	28	Aug.	28	Nov.	28		
Mar.	28	June	28	Sept.	28	Dec.	28		
						X	28		
	84		+ 84		+ 84				
							+ 112	=	364
							+ 1 blank day		1
									365

Another plan (very much like the first) has twelve months—8 of 30 days and 4 of 31 days, with a blank day.

Jan.	30	April	30	July	30	Oct.	30		
Feb.	30	May	30	Aug.	30	Nov.	30		
Mar.	31	June	31	Sept.	31	Dec.	31		
	91		+ 91		+ 91		+ 91	=	364
							+ 1 blank day		1
									365

And now we come to my plan. It has a $4\frac{1}{2}$ working day week. Think of the appeal that would make to the average working man (as a matter of fact he will work just as much as ever). It also has a quarter day at the end of each quarter—a blank day—a holiday (so we accountants will be sure of working on quarterly reports over the holidays)! It should appeal to all good churchmen—they will have 60 instead of 52 Sundays to go to church.

The year has 12 months of 30 days of 5 six-day weeks composed of Sunday, Monday, Tuesday, Thursday, Friday and Saturday. At the end of every three months comes Quarter Day, and at the beginning of the year, New Year's Day; these are "blank" or intercalary days. They are the only holidays unless others are created by legislative action in which case they would probably come on a Saturday or Sunday. But we have more than enough extra Saturdays and Sundays to make up for the holidays we have lost. The quarter days might well, in this country, be called Washington Day, Independence Day, Labor Day and Christmas. Unlike the present holidays these always follow a week-end, making a long holiday.

The quarter days come at the end of each quarter—and can when necessary be used for taking inventories, closing books, etc., as can New Year's Day. Leap year can be treated as it is now, but it will be an intercalary day. I would put it at the end of the second quarter making a $3\frac{1}{2}$ day holiday at the end of June. Interest would not be charged on intercalary days. On $1,000 at 6% it comes to just $1.00 a week. (If interest were not charged on Sundays it would come to $.20 a day.)

Jan.	30	April	30	July	30	Oct.	30	
Feb.	30	May	30	Aug.	30	Nov.	30	
Mar.	30	June	30	Sept.	30	Dec.	30	
Blank day	1		1		1		1	
	—		—		—		—	
	91		+ 91		+ 91		+ 91	364
				+ New Years' Day			1	365

This system has 270 working days as compared with 279 in the system now used. The figure 279 allows only for the seven holidays observed by every state in the union. The average figure would probably be about 276.

If in the new system we consider one Saturday of each month a full working day, we add in the course of the year six full working days, making our figure also 276. Personally I would not recommend this; although it makes the first and second half months each have $11\frac{1}{2}$ working days (putting the working Saturday in the first week), it also makes one week of the month different from the other four—and in our present civilization a cut of six working days per year is a luxury we ought to be able to afford.

I have recently heard about another system, not mentioned in the report of the Committee, which is in use in Soviet Russia. It is much like my plan, but it has a five day week—which, like mine, makes the first of the month always come on the same day and makes

uniform months in the year and from year to year. There is no fixed Sunday—one-fifth of the populace rests on one day (their Sunday) and another on the next day, etc., etc. This has the advantage of enabling their factories and stores to work throughout the year. All days are working days as far as statistics are concerned, except five holidays scattered through the year. Everyone can go shopping or to the theatre on his Sunday—if his conscience will permit him. And there would be no week-end traffic!

A Test Analysis of Unsuccessful Industrial Companies

(*Continued from page* 8)

situation appeared significant in view of the fact that intangibles and common stock are often closely related and that common stock frequently is given in payment for intangibles at the time of organization. The common stockholder's prospects in liquidation are ordinarily unfavorable because his is a residual claim; they are unusually poor when large amounts of intangibles, often of doubtful value, are involved.

In order to contrast the relationship of intangibles of the 29 failures to that of companies generally, the study was extended to an examination, in this one particular, of 225 companies selected at random from Moody's Industrial Manual. Of the 225 companies, 77 had had good will or other intangibles on their books during the six year period from 1922 to 1928. These companies represented 34 per cent of the 225 cases. On the other hand, the 16 failures encumbered with intangibles represented 55 per cent of the 29 failing companies.

On the basis of this comparison it is indicated that failing companies are more likely to possess intangibles than are other companies. While it cannot be said that the large proportion of intangibles to total tangible assets was the cause of the ultimate failure of these companies, it seems likely that unjustified intangibles played a part in the final outcome.

Summary

The study of the average company affords a composite representation of the condition of 29 companies as they approach failure. The status or financial condition of the failing companies is to be discerned from the ratio trends, which, although they do not reveal the actual causes of failure, do show the results of those causes.

The hypothetical average company derived from this study is not necessarily representative of other unsuccessful companies, nor are the average ratios to be taken as standards of all companies that have failed. However, if the history of the average company is accepted as typical of 29 failures in 17 different industries, and therefore to some extent typical of all failures, it is concluded that examination of the hereinbefore discussed ratio relationships for an individual company might be helpful in revealing tendencies toward weakness before such weakness became obvious.